

What is Claimed is:

1. An integrated circuit chip, the chip comprising:  
a plurality of components for processing signal  
groups; and

5 a group of components for receiving signal groups, the  
group of components including;

an antenna for receiving radio frequency signals;  
a radio frequency receiver coupled to the  
antenna, the receiver detecting the radio frequency  
10 signals; and

a demodulator coupled to the receiver, the  
demodulator recovering signal groups in the radio frequency  
signals, the signal groups being applied to the plurality  
of components.

15

2. The chip as recited in claim 1 wherein the radio  
frequency signals are modulated in a format selected from  
the group consisting of parallel-formatted signal groups  
and serial-formatted signal groups.

20

3. The chip as recited in claim 1 wherein signals  
received by the radio frequency receiver are modulated with  
a modulation from the group consisting of amplitude  
modulation and frequency modulation.

25

4. The chip as recited in claim 1 further including an analyzer, the analyzer receiving signals from the demodulator, the analyzer decodes the signal from the demodulator into a plurality of logic signals.

5

5. The chip as recited in claim 4 wherein the analyzer provides a parallel-data signal group for each demodulated signal in a series of demodulated signals.

10 6. The chip as recited in claim 1 wherein the group of components further includes:

a modulator for modulating a radio frequency signal with signals from the plurality of components; and

15 a transmitting unit for applying the modulated radio frequency signals to the antenna.

7. The chip as recited in claim 6 wherein the transmitting unit is coupled to a second antenna.

20 8. The chip as recited in claim 1 wherein the signal groups include a header portion, a data portion, and a tail portion.

9. A method for transferring logic signal groups  
25 between integrated circuit chips, the method comprising:

modulating and transmitting a radio frequency signal by a first integrated circuit with logic signal groups generated by the first integrated circuit; and

receiving and demodulating the radio frequency signal  
5 by the second integrated circuit.

10. The method as recited in claim 9 wherein the radio frequency signal transmits signal groups formatted in a serial format.

10

11. The method as recited in claim 9 wherein the radio frequency signal transmits signal groups formatted in a parallel format.

15 12. The method as recited in claim 9 wherein the modulation of the carrier frequency transmitting the signal groups is modulation with a modulation selected from the group consisting of amplitude modulation and frequency modulation.

20

13. The method as recited in claim 9 wherein a transmitted signal is encoded with a signal identifying preselected pattern of signals.

25 14. The method as recited in claim 13 wherein the receiving and demodulating provide a decoded signal representing a preselected pattern of signals.

15. A system for transferring data signal groups between integrated circuit chips: the system comprising:

5 a first integrated circuit chip, the first integrated circuit chip including:

a first processing unit; and

a radio transmitting unit coupled to the first processing unit and receiving signal groups there from, the radio transmitting unit transmitting the signal groups from  
10 the first processing unit; and

a second integrated circuit, the second integrated circuit including:

a second processing unit, and

a radio receiving unit coupled to the second processing unit, the radio receiving unit receiving radio  
15 signal from the transmitting unit, the transmitting unit applying signal groups to the second processing unit.

16. The system as recited in claim 15 wherein the second integrated circuit includes a transmitting unit, and  
20 wherein the first integrated circuit chip includes a receiving unit, the first integrated circuit chip receiving unit adapted to receive the signals from the second integrated circuit transmitting unit.

25

17. The system as recited in claim 15 wherein the signals groups are transmitted in a format selected from

the group consisting of serial-formatted groups and parallel-formatted signal groups.

18. The system as recited in claim 15 wherein the  
5 transmitting unit includes a synthesizer and the receiving unit includes an analyzer for processing serial transmitted information.

19. The system as recited in claim 15 wherein the  
10 first integrated circuit is located on a first circuit board and the second integrated circuit is located on a second circuit board.

20. The system as recited in claim 15 wherein the  
15 signal groups include a header portion, a data portion and a tail portion.